DATA PROCESSING SYSTEM USING INDEPENDENT MEMORY AND REGISTER OPERAND SIZE SPECIFIERS AND METHOD THEREOF

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Abstract of the Disclosure

Various load and store instructions may be used to transfer multiple
vector elements between registers in a register file and memory. A cnt
10   parameter may be used to indicate a total number of elements to be transferred
to or from memory, and an rcnt parameter may be used to indicate a maximum
number of vector elements that may be transferred to or from a single register
within a register file. Also, the instructions may use a variety of different
addressing modes. The memory element size may be specified independently
15   from the register element size such that source and destination sizes may differ
within an instruction. With some instructions, a vector stream may be initiated
and conditionally enqueued or dequeued. Truncation or rounding fields may be
provided such that source data elements may be truncated or rounded when
transferred. Also, source data elements may be sign- or unsigned- extended
20   when transferred.